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- 23 generation/emissions during these events.
- (6) The names and addresses of facilities to which any HFC-23 was sent for destruction, and the quantities of HFC-23 (metric tons) sent to each.
- (7) Annual mass of the HFC–23 generated in metric tons.
- (8) Annual mass of any HFC-23 sent off site for sale in metric tons.
- (9) Annual mass of any HFC-23 sent off site for destruction in metric tons.
- (10) Mass of HFC-23 in storage at the beginning and end of the year, in metric tons.
- (11) Annual mass of HFC-23 emitted in metric tons.
- (12) Annual mass of HFC-23 emitted from equipment leaks in metric tons.
- (13) Annual mass of HFC-23 emitted from process vents in metric tons.
- (b) In addition to the information required by §98.3(c), facilities that destroy HFC-23 shall report the following for each HFC-23 destruction process:
- (1) Annual mass of HFC-23 fed into the destruction device.
  - (2) Annual mass of HFC-23 destroyed.
- (3) Annual mass of HFC-23 emitted from the destruction device.
- (c) Each HFC-23 destruction facility shall report the concentration (mass fraction) of HFC-23 measured at the outlet of the destruction device during the facility's annual HFC-23 concentration measurements at the outlet of the device.
- (d) If the HFC-23 concentration measured pursuant to §98.154(1) is greater than that measured during the performance test that is the basis for the destruction efficiency (DE), the facility shall report the revised destruction efficiency calculated under §98.154(1) and the values used to calculate it, specifying whether §98.154(1)(1) or §98.154(1)(2) has been used for the calculation. Specifically, the facility shall report the following:
- (1) Flow rate of HFC-23 being fed into the destruction device in kg/hr.
- (2) Concentration (mass fraction) of HFC-23 at the outlet of the destruction device.
- (3) Flow rate at the outlet of the destruction device in kg/hr.
- (4) Emission rate (in kg/hr) calculated from paragraphs (d)(2) and (d)(3) of this section.

- (5) Destruction efficiency (DE) calculated from paragraphs (d)(1) and (d)(4) of this section.
- (e) By March 31, 2011 or within 60 days of commencing HFC-23 destruction, HFC-23 destruction facilities shall submit a one-time report including the following information for each destruction process:
  - (1) Destruction efficiency (DE).
- (2) The methods used to determine destruction efficiency.
- (3) The methods used to record the mass of HFC-23 destroyed.
- (4) The name of other relevant federal or state regulations that may apply to the destruction process.
- (5) If any changes are made that affect HFC-23 destruction efficiency or the methods used to record volume destroyed, then these changes must be reflected in a revision to this report. The revised report must be submitted to EPA within 60 days of the change.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66463, Oct. 28, 2010]

# §98.157 Records that must be retained.

- (a) In addition to the data required by §98.3(g), HCFC-22 production facilities shall retain the following records:
- (1) The data used to estimate HFC-23 emissions.
- (2) Records documenting the initial and periodic calibration of the gas chromatographs, weigh scales, volumetric and density measurements, and flowmeters used to measure the quantities reported under this rule, including the industry standards or manufacturer directions used for calibration pursuant to §98.154(p) and (q).
- (b) In addition to the data required by 98.3(g), the HFC-23 destruction facilities shall retain the following records:
- (1) Records documenting their onetime and annual reports in §98.156(b) through (e).
- (2) Records documenting the initial and periodic calibration of the gas chromatographs, weigh scales, volumetric and density measurements, and flowmeters used to measure the quantities reported under this subpart, including the industry standard practice or manufacturer directions used for

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calibration pursuant to §98.154(p) and (q).

 $[74\ FR\ 56374,\ Oct.\ 30,\ 2009,\ as\ amended\ at\ 75\ FR\ 66463,\ Oct.\ 28,\ 2010]$ 

## § 98.158 Definitions.

All terms used in this subpart have the same meaning given in the Clean Air Act and subpart A of this part.

TABLE O-1 TO SUBPART O OF PART 98—EMISSION FACTORS FOR EQUIPMENT LEAKS

Equipment type	Service	Emission factor (kg/hr/source)	
		≥10,000 ppmv	<10,000 ppmv
Valves Valves Pump seals Compressor seals Pressure relief valves Connectors Open-ended lines	Gas Light liquid Light liquid Gas Gas All	0.0782 0.0892 0.243 1.608 1.691 0.113	0.000131 0.000165 0.00187 0.0894 0.0447 0.0000810

## Subpart P—Hydrogen Production

## §98.160 Definition of the source category.

- (a) A hydrogen production source category consists of facilities that produce hydrogen gas sold as a product to other entities.
- (b) This source category comprises process units that produce hydrogen by reforming, gasification, oxidation, reaction, or other transformations of feedstocks.
- (c) This source category includes merchant hydrogen production facilities located within another facility if they are not owned by, or under the direct control of, the other facility's owner and operator.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66463, Oct. 28, 2010]

## §98.161 Reporting threshold.

You must report GHG emissions under this subpart if your facility contains a hydrogen production process and the facility meets the requirements of either §98.2(a)(1) or (a)(2).

## §98.162 GHGs to report.

You must report:

- (a)  $\text{CO}_2$  emissions from each hydrogen production process unit.
  - (b) [Reserved]
- (c)  $CO_2$ ,  $CH_4$ , and  $N_2O$  emissions from each stationary combustion unit other than hydrogen production process units. You must calculate and report

these emissions under subpart C of this part (General Stationary Fuel Combustion Sources) by following the requirements of subpart C.

(d) For  $CO_2$  collected and transferred off site, you must follow the requirements of subpart PP of this part.

[74 FR 56374, Oct. 30, 2009, as amended at 75 FR 66463, Oct. 28, 2010]

## § 98.163 Calculating GHG emissions.

You must calculate and report the annual  $CO_2$  emissions from each hydrogen production process unit using the procedures specified in either paragraph (a) or (b) of this section.

- (a) Continuous Emissions Monitoring Systems (CEMS). Calculate and report under this subpart the CO<sub>2</sub> emissions by operating and maintaining CEMS according to the Tier 4 Calculation Methodology specified in §98.33(a)(4) and all associated requirements for Tier 4 in subpart C of this part (General Stationary Fuel Combustion Sources).
- (b) Fuel and feedstock material balance approach. Calculate and report CO<sub>2</sub> emissions as the sum of the annual emissions associated with each fuel and feedstock used for hydrogen production by following paragraphs (b)(1) through (b)(3) of this section.
- (1) Gaseous fuel and feedstock. You must calculate the annual  $CO_2$  emissions from each gaseous fuel and feedstock according to Equation P-1 of this section: